

# RECLAMATION

*Managing Water in the West*

## FINDING OF NO SIGNIFICANT IMPACT

### 2010-2011 Water Transfer Program

United States Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region  
Sacramento, California

**Recommended:** \_\_\_\_\_  
Natural Resource Specialist Date

**Concur:** \_\_\_\_\_  
Program Manager Date

**Concur:** \_\_\_\_\_  
Program Management Branch Chief Date

**Concur:** \_\_\_\_\_  
Regional Environmental Affairs Officer Date

**Approved:** \_\_\_\_\_  
Regional Resources Manager Date

FONSI Number:





## Background

To help facilitate the transfer of water throughout the State, the Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR) are considering whether they should approve and facilitate water transfers between willing sellers and buyers. Transfers that would require the use of Central Valley Project (CVP) or State Water Project (SWP) facilities would be approved on an individual basis, but are referred to collectively as the 2010-2011 Water Transfer Program. Most transfers would occur from willing sellers upstream from the Sacramento-San Joaquin Delta (Delta) to buyers that export water from the Delta. The transfer water would be conveyed, using CVP or SWP facilities, to water users that are at risk of experiencing water shortages in 2010 and 2011 due to drought conditions and that require supplemental water supplies to meet anticipated demands. Reclamation would review and approve, as appropriate, proposed transfers of CVP water in accordance with the Interim Guidelines for the Implementation of Water Transfers under the Central Valley Project Improvement Act (CVPIA).

The Proposed Action identifies 16 entities that may be willing to sell CVP water for transfer to interested buyers in the export service area. A total of up to about 200,000 acre feet of CVP water could be made available for transfer through a combination of groundwater substitution, cropland idling, or crop substitution. The Proposed Action only includes those actions over which Reclamation has approval authority. The remainder of the transfers that could occur in 2010 and 2011 are considered in the context of cumulative impacts.

An environmental assessment (EA) was prepared to evaluate the potential environmental impacts associated with the Proposed Action and the No Action Alternative. The EA is attached for reference. The estimates analyzed in the draft EA reflect the potential upper limit of available water. However, actual transfers would depend on hydrology, interested buyers, and the amounts that sellers would ultimately have available for transfer in 2010 and 2011, as well as compliance with CVPIA transfer requirements.

## Findings

In accordance with the National Environmental Policy Act of 1969, as amended, Reclamation has found that the approval of proposed transfers of CVP water in support of the 2010-2011 Water Transfer Program is not a major Federal action that would significantly affect the human environment. Therefore, an environmental impact statement is not required.

This finding of no significant impact (FONSI) is based on the following:

### **Surface Water Resources**

Cropland idling transfers would reduce water supply for users not participating in the transfer who rely on return flows from fields that would be idled. In order to minimize this impact, sellers will be required to maintain flows at the downstream end of their distribution system under the Proposed Action to minimize potential water supply effects to neighboring and downstream water users.

Acquisition of water via groundwater substitution or cropland idling would change the rate and timing of flows in the Sacramento and Lower American Rivers. Flow and temperature requirements, including Water Right Orders 90-5 and 91-1 temperature control planning requirements for the Sacramento River, will continue to be met under the Proposed Action, which would minimize the magnitude of such changes. Although there would be a change in timing and rate of river flows, the annual supply of water to Project or non-Project users that are not participating in transfers would not decrease.

Water transfers would be conveyed through existing facilities. Water transfers involving conveyance through the Delta will be implemented within the operational parameters of the Biological Opinions on the Continued Long-term Operations of the CVP/SWP and any other regulatory restrictions in place at the time of implementation of the water transfers.

Under the Proposed Action, additional water supply would benefit water users who receive the transferred water. Given the above factors, the effects of the Proposed Action on surface water resources will not be significant.

### **Groundwater Resources**

Groundwater substitution transfers could affect groundwater hydrology. The potential effects would be decline in groundwater levels, interaction with surface water, land subsidence, and water quality impacts.

Well reviews and monitoring and mitigation plans will be implemented under the Proposed Action to minimize potential effects to groundwater resources. All plans will be coordinated and implemented in conjunction with local ordinances, basin management objectives, and all other applicable regulations. Required information is detailed in the Draft Technical Information Papers for Water Transfers in 2010 for groundwater substitution transfers.

These reviews and plans will be required from sellers for review by Reclamation during the transfer approval process. Reclamation will not approve transfers without adequate mitigation and monitoring plans. Therefore, the Proposed Action will not have a significant adverse impact on groundwater resources.

## **Water Quality**

Groundwater substitution and cropland idling water transfers would alter surface water elevation and reservoir storage in Lake Shasta and Folsom Reservoir. Because of the small, incremental changes caused by the transfers relative to the size of the reservoirs, implementation of the Proposed Action would not adversely affect concentration of water quality constituents or water temperatures in the reservoirs. The Proposed Action also would not substantially change flows or temperatures in the Sacramento or Lower American Rivers.

Because the majority of soils within the potential cropland idling areas have slight erosion potential, there would be little to no increase in sediment transport and there would be no effects to water quality. Reduction of applied water for irrigation could reduce the potential for leaching of salts and trace elements and reduction of fertilizers and pesticides could decrease nutrient concentrations in surface water runoff. This would be a potential benefit to water quality.

Conveyance of transfer water under the Proposed Action will be implemented using standard CVP and SWP operating procedures designed to improve the water quality to users south and downstream of the Delta. Carriage water will be used to protect and maintain chloride concentrations in the Delta. The Proposed Action will not have a significant adverse effect on water quality.

## **Geology and Soils**

The Proposed Action may increase the extent of soil shrinkage due to lack of irrigation. However, because the proposed idling lands are agricultural and subject to normal swelling and shrinkage, structures or roads in the vicinity of the cropland are also subject to the same changes. The shrinking of soils due to cropland idling would not adversely affect structures or roads.

Cropland idling transfers could increase soil loss from wind erosion. In the Sacramento Valley, many soils contain some percentage of clay content, which are less susceptible to erosion. In other areas with silt loam soils, farmers would likely manage the land during the idling season to reduce potential soil erosion impacts so that future crop yields

would not be affected. The Proposed Action will not significantly affect geology and soils.

## **Agricultural Land Use**

One-year water transfers under the Proposed Action would temporarily take land out of production, but would not affect the long-term agricultural uses of the land. Cropland idling transfers under the two-year program would not affect the long-term designations of Prime Farmland or other Farmland Mapping and Monitoring Program classifications. The Proposed Action will not result in significant impacts to agricultural land use.

## **Vegetation and Wildlife**

Decreasing groundwater levels could reduce part of the water base for natural and managed seasonal wetlands and riparian communities. The well review and required monitoring and mitigation plans described in the groundwater section would minimize or avoid potential adverse effects to habitat from groundwater-surface water interaction.

Cropland idling under the Proposed Action would reduce return flows, potentially affecting neighboring managed seasonal wetlands. To avoid this potential impact, sellers will be required to maintain flows at the downstream end of their distribution system to minimize potential water supply effects to neighboring and downstream water users.

Cropland idling of seasonally flooded agricultural land under the Proposed Action could reduce the amount of over winter forage for migratory birds. In order to limit reduction in the amount of over-winter forage for migratory birds, Reclamation will avoid or minimize actions near known wintering areas and areas that support core populations of special status species such as the black tern and greater sandhill crane. Limiting idling to 20 percent of crop acreage in a county would also limit effects to foraging, resting, and nesting habitat from idling of rice or other upland crops.

As a result of environmental commitments and minimization measures, the Proposed Action will not result in significant impacts to vegetation and wildlife.

## **Fisheries**

Transfers involving conveyance through the Delta will be implemented within the operational parameters of the Biological Opinions on

Continued Long-term Operations of the CVP/SWP. Water transfers under the Proposed Action will be implemented in accordance with meeting flow and temperature requirements on the Sacramento River.

The Proposed Action could result in increased flow in the Sacramento River during some portions of some years. Flow increases would generally be considered to improve habitat conditions for salmonids. Sudden changes in flows could induce young salmon to move downstream prematurely. To avoid this potential effect, large flow changes would be ramped slowly. The Proposed Action will not result in significant impacts to fisheries.

### **Special Status Species**

In compliance with Section 7 of the Endangered Species Act, Reclamation is consulting with the U.S. Fish and Wildlife Service (USFWS) on the Proposed Action. The 2010-2011 Water Transfer Program will adopt the cropland idling conservation measures in the 2009 Drought Water Bank Biological Opinion with some modifications. These measures are designed to minimize effects from water transfers. As part of the approval process, Reclamation will have access to the land to verify how the water transfer is being made available and to verify that the actions to protect the giant garter snake (GGS) are being implemented:

- The block size of idled rice parcels will be limited to 320 acres in size with no more than 20 percent of rice fields idled cumulatively (from all sources of fallowing) in each county. The 320-acre blocks will not be located on opposite sides of a canal or other waterway, and will not be immediately adjacent to another fallowed parcel (a checkerboard pattern is the preferred layout). Reclamation will work with DWR to document compliance.
- Reclamation, with DWR's assistance, will provide a map(s) USFWS in June of each year showing the parcels of riceland that are idled for the purpose of transferring water in 2010 and 2011. These maps will be prepared to comport to Reclamation's GIS standards.
- Parcels participating in cropland idling will not include:
  - Lands adjacent to Butte Creek, Colusa Drainage Canal, Gilsizer Slough, the land side of the Toe Drain along the Sutter Bypass, Willow Slough and Willow Slough Bypass in Yolo County, and

- Lands in the Natomas Basin.
- The water seller will maintain a depth of at least two feet of water in the major irrigation and drainage canals (but never more than existing conditions) to provide movement corridors.
- Water will not be purchased from a field fallowed during the two previous years (water may be purchased from the same parcel in successive years).
- As part of a Giant Garter Snake Baseline Monitoring and Research Strategy for the development of a GGS Conservation Strategy, Reclamation and DWR are proposing research goals to help quantify and evaluate the response of the GGS to rice land idling. The focus of the Strategy will be in the Colusa, Butte, Sutter, and Yolo Basins.

The Proposed Action is not likely to adversely affect the San Joaquin kit fox. The Proposed Action includes conservation measures that have been coordinated with the USFWS to minimize adverse impacts to GGS populations by reducing stressors; therefore, the Proposed Action will not have a significant impact on GGS. Formal consultation with USFWS will be completed prior to finalizing the EA and FONSI.

## **Air Quality**

Emissions from the operation of diesel engines could exceed emissions thresholds for each air district and de minimis thresholds for General Conformity. Emissions as a result of the Proposed Action were within thresholds for Glenn, Colusa, Sacramento, and Sutter Counties. Minimization measures will reduce emissions in Yolo County to meet local thresholds. The emissions associated with the Proposed Action are also expected to be less than the General Conformity de minimis thresholds.

Idling rice fields would reduce the use of farm equipment and associated pollutant emissions, resulting in a beneficial impact on air quality. The Proposed Action will not result in significant impacts to air quality.

## **Power**

The Proposed Action would not change the amount of water that is released from the reservoirs, but could alter the release pattern. Buyers would be responsible for covering any additional costs associated with changes in release patterns. The Proposed Action would result in an



average electricity increase at the Project pumps during July, August, and September, depending on the amount of water actually transferred under the Proposed Action. Groundwater wells in the Sacramento Valley would increase electricity use during transfer months. This increase in electricity use would represent less than 2 percent of the projected statewide electrical surplus during these months. Therefore, the Proposed Action will not have a significant impact on power.

## **Cultural Resources**

The Proposed Action would not draw down CVP reservoirs beyond historic operational levels; therefore, there will be no impacts to cultural resources.

## **Socioeconomics**

The maximum amount of water made available by cropland idling/crop shifting would be 90,400 acre feet in Colusa, Glenn, Sutter, and Yolo counties. If only rice fields were idled, the maximum acreage from idling from CVP sellers would be about 27,400 acres, which would be about 8 percent of 2008 rice acreage in the four counties. Furthermore, it is likely that the actual amount of water that is actually transferred via this method in 2010 and 2011 would be less. Because transfers would only occur over one year, farmers would likely put the land back into agricultural production in the subsequent year and continue to generate economic output and employment. The 2010-2011 Water Transfer Program is also only proposed for two years and would not result in long-term economic impacts.

Water districts and individuals that receive funds from the sale of water would likely continue to spend a portion of their revenues within the local economy. These reinvestments may not benefit those possibly affected by the cropland idling transfers, but can help offset overall economic impacts in the county. The Proposed Action will not result in significant impacts to the regional economy.

Water transfers under the Proposed Action would provide water to agricultural and urban areas in the Export Service Area to reduce potential shortages, which would be an economic benefit.

## **Indian Trust Assets**

Based on the actions to be undertaken it is determined that there would be potential effects to Indian Trust Assets (ITAs). However, during the transfer approval process, if Reclamation identifies potential impacts to

ITAs, tribal consultation will then precede any approval of a groundwater transfer in the vicinity of the identified tribes and avoidance and minimization measures will be collaboratively developed and implemented by sellers so that the Proposed Action will not have a significant impact on ITAs.

## **Environmental Justice**

Because of the farmworker profile, cropland idling could have disproportionate effects on low income and minority farmworkers. However, to minimize the potential for this effect, cropland idling (from all sources) would be restricted to no more than 20 percent of eligible crop acreage in any county. The Proposed Action also has the potential benefit of alleviating the need for some idling and or farm laborer job loss in areas receiving transfer water. As the Proposed Action would not disproportionately expose low income or minority populations to adverse environmental or human health impacts, the Proposed Action will not have a significant environmental justice impact.

## **Climate Change**

The Proposed Action would have no construction element and would use existing facilities within the range of normal operations; however, emissions of greenhouse gases could increase through the use of diesel-fueled engines for groundwater pumping. Because estimated emissions of CO<sub>2</sub> would be less than 25,000 metric tons per year under the Proposed Action, the threshold used by the California Air Resources Board in its mandatory reporting rule, effects to climate change will not be significant.

## **Visual Resources**

The Proposed Action could result in temporary changes or seasonal changes in the landscape, but these changes would be minor and not affect existing Class A or B Visual Resources. Therefore, the Proposed Action will not significantly affect visual resources.

## **Cumulative Effects**

The cumulative analysis considers other potential water transfers that could occur in the 2010 and 2011 transfer season, including non-CVP water transfers and other existing water transfer and groundwater programs, including the Lower Yuba River Accord and Sacramento Valley Water Management Program.

Twenty entities have indicated interest in selling non-CVP water for transfer in 2010 and 2011. From non-CVP sources, sellers could potentially transfer up to 90,100 acre feet from cropland idling, 48,700 acre feet from groundwater substitution, 54,000 acre feet from reservoir reoperation, and 3,100 acre feet from other sources. These values represent maximum annual transfer amounts and the maximum would not likely be transferred in one year. Total annual maximum water available for transfer from CVP and non-CVP sellers would be 180,510 acre feet from cropland idling/crop shifting and 154,237 acre feet from groundwater substitution. The cumulative total annual amount potentially transferred from all sources would be up to 391,847 acre feet.

All water transfers will be implemented in accordance with requirements for meeting flow and temperature requirements on the Sacramento River and within the operational parameters of all applicable water quality standards and the Biological Opinions on Continued Long-term Operations of the CVP/SWP. Reclamation and DWR coordinate closely on all transfers that use CVP and SWP facilities.

Given the short-term nature of the proposed water transfer program, impacts to the previously discussed resource categories associated with the Proposed Action would be temporary in nature, and will not contribute to a cumulatively significant adverse impact when added to other past, present, and reasonably foreseeable future actions.